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AUTHOR Bass, Gail; Berman, Paul
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ABSTRACT

Two investigations were conducted to determine whether rural school districts receive a fair share of federal education funds: a quantitative analysis of the distribution of federal funds between rural and nonrural school districts and a qualitative exploration of the special needs and disadvantages of rural school systems. The quantitative study examined, for six states, the distribution of fiscal year 1977 funds for two state-administered federal programs: Libraries and Learning Resources (ESEA Title IV, Part B) and Educational Innovation and Support (ESEA Title IV, Part C). In the sample states Title IVB funding (formula based) provided rural districts with a fair proportion of program funds according to the standard of equal funding per student. For Title IVC funding (grants competitions) rural districts fared poorly when states awarded fewer, larger-sized grants. Fieldwork conducted at state, regional, and local education agencies, revealed three major problems affecting the quality of rural education: financial constraints, difficulties of attracting staff, and administrative limitations. The study findings suggest that the problems of certain rural areas (particularly the economically depressed and the more isolated and less populated) merit policy initiatives independent of urban or suburban policies. (Author/JH)

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FEDERAL AID TO RURAL SCHOOLS: CURRENT PATTERNS AND UNMET NEEDS

PREPARED FOR THE NATIONAL INSTITUTE OF EDUCATION

GAIL BASS, PAUL BERMAN

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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PREFACE

This report presents findings from an exploratory study of aspects of federal educational policy toward rural schools. The study, which was sponsored by the Office of the Assistant Secretary for Education, U.S. Department of Health, Education, and Welfare, and the National Institute of Education, focuses on a deceptively simple question: Do rural districts get a "fair share" of federal aid? The study itself is divided into two parts: (1) a preliminary analysis of the distribution of federal funds (for two federal programs in six states) between rural and nonrural school districts, and (2) a qualitative exploration of the special needs and disadvantages of rural school systems. It is designed as a pilot effort to pave the way for further research about federal policy toward rural schools.

This set of findings supersedes an earlier Rand Note, *Funding Mechanisms and Their Effects on Rural Areas: An Analysis of Two Federal Programs* (N-1237-HEW, July 1979), which reported results of the quantitative analysis of funds distribution.

SUMMARY

This pilot study investigates whether rural school districts receive a "fair share" of federal education funds. It consists of two parts: a quantitative analysis of the distribution between rural and nonrural school districts of funds from two federal programs in six states, and a qualitative exploration of the special needs and disadvantages of rural school systems.

Rural advocates have claimed that rural students do not get their fair share of the federal education dollar. Unfortunately, there has been little analysis that sheds light on claims of antirural bias in the allocation of federal education funds. Earlier studies use nonmetropolitan status (a category that includes cities of up to 50,000 people) as their indicator of ruralness, which might mask the fact that smaller rural districts receive a disproportionately small share of federal funds.

This study examines, for six states (Vermont, North Carolina, Georgia, Kansas, Maryland, and California), the distribution of fiscal year 1977 funds between rural and nonrural school districts for two state-administered federal programs: Libraries and Learning Resources (ESEA Title IV, Part B), and Educational Innovation and Support (ESEA Title IV, Part C). These two programs represent the two basic types of federal funding mechanisms—formula-based (Title IVB) and grants competitions (Title IVC).

For the purpose of this study, we accepted that there is no perfect definition of rural. In addition to using the metropolitan/nonmetropolitan distinction used in other studies, we performed analyses using three finer-grained definitions of ruralness. Our criterion of equity in the quantitative analysis was whether rural districts were receiving the same number of dollars per student from the federal program as were nonrural districts.

In our sample states, Title IVB funding formulas are operating to provide rural districts with at least a proportional share of program funds and in most cases somewhat more. This finding must be understood in the context of rural needs and costs, however. Even with a greater per capita share of Title IVB dollars, a small rural district can purchase fewer library books or pieces of instructional equipment than can a populous district with a lower per capita grant. Given that the locally supplied instructional resource base may also be poorer in the small rural district, rural students may remain in a relatively disadvantaged position (in terms of access to learning materials and equipment), despite their greater share of Title IVB funds.

A different picture emerges from the competitive grant system of Title IVC. Using our least refined definition, nonmetropolitan districts receive a proportional or higher share of Title IVC funds in our sample states. However, results using finer-grained definitions reveal a mixed pattern. Rural districts in California, Kansas, and Vermont receive Title IVC per capita funds that are below and, in some cases, considerably below the amount received by nonrural districts; the reverse holds true for Maryland, Georgia, and North Carolina. It appears that rural districts fare more poorly in those states that award fewer, larger-sized Title IVC grants. State systems that award a greater number of smaller-sized grants, whether

for project adoption purposes or locally developed improvement efforts, apparently enhance participation by rural districts.

A problem with the equity measure used in our quantitative analysis is that some rural districts may have severe, unmet needs or unusually high per student costs. In cases where rural districts are relatively deprived, the provision of equal per student funds to rural and nonrural districts might be judged to be "unfair," for it would leave the disparity between them unaltered. The limited resources of this study did not permit an analysis of both rural and nonrural needs. We therefore limited our focus to rural needs, reasoning that the problems of certain rural areas may be great enough in absolute terms or relative to other rural areas (particularly ones that are less isolated or more populated) to merit policy initiatives independent of urban or suburban problems. Our data strongly suggest that this is so.

The objective of the qualitative phase of this study was to identify some characteristics of sparsely populated and isolated rural school districts that (a) hamper efforts to maintain adequate programs or to improve the quality of schooling and (b) might be amenable, either directly or indirectly, to federal policies. We conducted fieldwork in state departments of education, local education agencies, and regional offices to gather data about how practitioners, officials, and informed observers view the special needs of rural school systems.

We discuss three categories of conditions that interfere with the ability of some rural districts to maintain quality education programs and to participate in federally funded programs to improve educational services. These are: (1) financial constraints, (2) difficulties of attracting staff, and (3) administrative limitations. These conditions seemed to exist to varying degrees in most of the sparsely populated and isolated districts we visited, but they represent more severe obstacles to those districts serving economically depressed communities with large numbers of poor and minority youngsters.

We present several possible strategies for attacking the special problems of rural school systems. These include: (1) revision of funding mechanisms in federal education and related programs; (2) the use of shared services and regional agencies to help compensate for rural district staffing and administrative limitations; (3) programs for building organizational capacity in rural districts, as through training of administrators, teachers, and school board members; and (4) development of a program offering incentives to attract educational personnel to isolated rural districts.

The study makes the following recommendations:

1. *To meet rural needs, federal formula grant programs should explicitly require states to include factors for small size and isolation.*
2. *Policymakers should assess the feasibility and analyze the consequences of various means (e.g., a rural setaside, awarding of smaller-sized grants, incentives for regional cooperation or other intermediate institutions, and the establishment of state-level rural outreach programs) of assuring state cooperation in reducing rural competitive disadvantages in grant programs.*
3. *Future analyses of federal funding patterns should examine distribution of funds among more and less rural places within nonmetropolitan counties, rather than rely only on the urban-suburban-nonmetropolitan clas-*

sification. Policy intended to assist rural areas should use finer-grained definitions of "rural" than "nonmetropolitan."

4. *Future research on funding patterns for rural areas should concentrate on lower levels of aggregation, using data collected from individual states and districts.*
5. *Research should be funded to identify and propose solutions to problems in implementing existing federal programs in rural areas. Policymakers should consider initiatives that differentiate among types of rural areas, with particular attention to stressed rural districts. Research should be supported (a) to explore the feasibility of an index of rural district stress and (b) to identify conditions under which various policy alternatives might prove effective in different rural settings.*

ACKNOWLEDGMENTS

We wish to acknowledge the assistance of numerous people who contributed to this study. Jerry Fletcher of the Office of the Assistant Secretary for Education, U.S. Department of Health, Education, and Welfare, recognizing the need for better information on which to base federal policy toward rural schools, was responsible for initiating this project. Charles Thompson and Thomas Schultz, of the National Institute of Education, helped to arrange additional support for the research.

Jonathan Sher assisted in planning the study and provided many valuable comments on an earlier version of this report. Terry Fain's skillful computer programming greatly facilitated the quantitative analysis. John Pincus, Peter Morrison, Paul Hill, and Aaron Gurwitz reviewed the report and offered useful suggestions for improving it.

We would also like to thank Patricia Bedrosian, who edited the report, and Nancy Lees, who prepared the manuscript.

Last, we want to express our indebtedness to the many individuals—rural educators and community members, regional agency staff, officials of state departments of education—who generously shared their insights and experience with us. Naturally, responsibility for the interpretations and conclusions contained herein remains ours alone.

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I. STUDY OBJECTIVES

Rural schools enroll between one-fourth and one-third of the nation's public school students, depending on how the term "rural" is defined. More than 11,000 school districts (two-thirds of the U.S. total) are located in nonmetropolitan areas (U.S. Bureau of the Census, 1973, Table 2). While rural students and school districts thus represent a sizable portion of the U.S. public education system, they have received little special attention from federal policymakers.

Good data on rural areas are hard to come by, but there is considerable evidence that many rural communities rank high in terms of both socioeconomic and educational disadvantage, even when compared to inner cities. Studies indicate that, on the whole, rural America has the nation's highest rates of poverty, malnutrition, infant mortality, underemployment, and substandard housing (Sher, 1978). A recent Department of Agriculture review of data available on rural education concluded that rural/nonmetropolitan residents rank behind urban/metropolitan residents on a variety of measures of access to educational services and educational achievement (Fratoe, 1978).

Rural areas thus have the types of problems that a variety of federal education programs are designed to attack. Yet, rural advocates have claimed in recent years that rural students do not get their "fair share" of the federal education dollar and that federal programs, as presently operated, are sometimes poorly tailored to rural conditions (Sher, 1978). Critics cite ways in which this presumed antirural bias of federal education policy may be manifested in programs with different types of funding mechanisms. First, in formula-based programs, the funding formula may be constructed in such a way as to limit the allocations to rural schools and districts. For example, program formulas that set a minimum district enrollment as a criterion for eligibility might fall in this category. Second, programs that award funds on the basis of competitive applications, rather than a funding formula, may place rural districts at a competitive disadvantage. Small and isolated rural districts, it is claimed, lack the administrative staff and grant-writing expertise to develop winning proposals. Where, after all, would the rural educator serving as superintendent, principal, and teacher find the time to sit down and complete a lengthy and complicated application?

These claims of antirural bias seem plausible, but policymakers need a more refined analysis of the problem before they can be expected to act. Accordingly, the purpose of this study is to explore how systematic research might determine whether rural districts receive their fair share of federal funds. This pilot effort is designed to define the policy issues more precisely, to identify methodological tools that permit their analysis, and to recommend future federal policy and research initiatives toward rural schools.

The "fair share" issue is so complex that it needs to be divided into manageable pieces. One aspect of this issue requires quantitative analyses to answer a question about the distribution of funds: To what extent are existing federal funds distributed unfairly, as between rural and nonrural areas? The few reported analyses of the allocation of funds from federal programs do not answer this question satisfactorily.

For example, using 1970 data, Berke et al. (1976) found that distribution of federal funds among urban, suburban, and rural (actually nonmetropolitan) districts varied considerably across states. "In heavily urban states such as New York, Ohio, Massachusetts, and Michigan, federal aid focuses primarily on central cities. In states with a more mixed degree of urbanism (Colorado, California, Kansas, Texas, Virginia) the central cities, suburban, and rural areas tend to be more balanced in aid distributions. Finally, in rural states such as Mississippi, North Carolina, and Washington, the balance shifts toward rural areas" (Berke et al., 1976, p. 98). Ginsburg (1975) examined national figures and found the per pupil federal revenues in nonmetropolitan districts to be $67.23, as compared with $75.73 in center cities. Regional patterns also varied in ways similar to that reported in the Berke et al. analysis: Nonmetropolitan students received much less on the average than their urban counterparts in the Northeast ($32.42 compared with $105.25); somewhat less in the Midwest ($44.55 compared with $68.96); and somewhat more in the South ($92.38 compared with $73.60) and the West ($79.08 compared with $64.04) (Ginsburg, 1975, Appendix tables).

These two studies suggest, on the whole, that rural districts are not systematically discriminated against on a national basis when it comes to receiving federal aid.[1] A problem with these studies, however, is that both use nonmetropolitan status (i.e., lying outside the boundaries of Standard Metropolitan Statistical Areas (SMSAs)) as their indicator of ruralness. But this definition includes cities with populations of up to 50,000—places not usually considered rural. If these more urbanized nonmetropolitan districts were capturing large amounts of federal funds, and more rural nonmetropolitan districts were receiving fewer federal grants, analyses using nonmetropolitan status (such as those by Ginsburg and Berke et al.) might fail to reveal an antirural funding bias. What policymakers need is an analytic way of identifying those rural districts that might be missing out on federal funds for the types of reasons cited above. To our knowledge, there have been no studies of federal funding patterns using such finer-grained definitions of ruralness. This study will define ruralness in several different ways to see how sensitive an assessment of the "fairness" of federal funding might be to alternative definitions.

But developing a sharper analytical tool for dissecting ruralness is only part of the policy issue of "fair share": Criteria for determining fairness or equity also need to be defined. Educational policy inevitably struggles with different, often conflicting, concepts of equity. The equity issue has received considerable attention in finance literature, and in literature concerning equal educational opportunity for economically disadvantaged students (particularly in debates about Title I of the

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[1]Testimony presented to Congress by the Department of Health, Education, and Welfare (Office of Rural Development, 1975) conflicts with the findings of the Berke et al. and Ginsburg studies and suggests that disproportionately low levels of federal education funds go to nonmetropolitan areas generally (see Sher, 1978). Conversations with individuals familiar with the Community Services Administration data on which the HEW testimony was based, however, pointed out some serious problems with these data. For example, in certain programs (e.g., Vocational Education Basic Grants to States), the federal government allocates money to the states, which in turn distribute funds to local agencies. But the HEW data record a state's entire vocational education allocation as going to the county in which the state capital is located. They do not reveal how the state then distributes the funds. Thus, the finding that only "13 percent of these funds go to nonmetropolitan areas" reflects only the fact that most state capitals are in metropolitan counties.

Elementary and Secondary Education Act). This attention, however, tends to take a distinctly urban cast, to the possible neglect of uniquely rural equity concerns. Thus, we need to explore how different concepts of equity might be viewed from a rural perspective to determine whether rural districts are being treated fairly.

The relevant literature (e.g., Odden, 1978) discusses two broad approaches to equity. One approach uses "equalized funding per pupil" as an equity standard. In terms of our analysis, this criterion asks whether rural areas receive federal dollars in proportion to their share of the student population. If 30 percent of a state's students attend school in rural districts, for example, do these districts receive 30 percent of federal program funds? This measure has the practical advantage of being easily operationalized. We will use this standard of equity to examine how fairly fiscal year 1977 funds from two federal programs were distributed between rural and nonrural school districts (employing several finer-grained definitions of rural). The next section discusses the programs and states we selected for this exploratory quantitative treatment.

A major difficulty with defining equity solely in terms of equal funding per student, however, is that all students are not equal in their needs; moreover, some schools have more disadvantaged students than others. A main concern of analysts has been to develop needs-based formulas so that the disadvantaged can be compensated. These formulas address student economic disadvantage in general and, consequently, affect rural as well as nonrural students. However, they do not directly treat system or organizational disadvantages that prevent districts from delivering adequate education. Though these system needs are not easily measured, they represent a fundamental aspect of assessing how fairly federal funds are being distributed. We want to know whether rural schools have special needs or disadvantages (compared with schools in nonrural situations)[2] that prevent them from offering a quality program. Therefore, a second purpose of this study has been to identify, using qualitative information, conditions in rural organizational arrangements that both differ dramatically from urban arrangements and seem to limit the ability of rural school districts to develop and maintain adequate education.

In summary, this report has two objectives. First, we will examine the distribution of funds from two federal programs to see whether rural schools are receiving as much financial support per student as nonrural schools. The sample of states and programs is small because we wanted to develop an appropriate methodology for defining rural in more refined ways and for putting into operation a measure that would represent equal funding per student; consequently, findings are preliminary. Second, we shall identify special needs or disadvantages that rural school districts have because of their ruralness. We believe that this combination of examining actual funding patterns, on the one hand, and of identifying rural needs and disadvantages, on the other hand, may provide a balanced, though preliminary, basis for recommending further research and policy toward rural schools.

The next section describes our methodology for both the quantitative and

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[2]We wish to emphasize that a quality educational program for a rural school may be quite different from one in an urban school. For example, at the high school level, there may be fewer specialized course offerings and a greater reliance on self-guided study supervised by teachers who are generalists. For a sensitive discussion of some of the special features of schooling in isolated, rural communities, see Gjelten (1978).

qualitative aspects of the research. Section III presents findings about the funding patterns for the federal programs, interprets these results, and describes aspects of the operation of these programs that are relevant to understanding the funding patterns. Section IV identifies special problems faced by some rural districts, particularly under more disadvantaged situations, and examines several strategies that might be used to ameliorate these problems. The final section offers tentative conclusions and recommendations for further research and policy.

II. METHODOLOGICAL APPROACH

This section explains our methodological approach for the quantitative analysis of federal funding patterns and the qualitative exploration of special needs of rural districts. We describe, in turn, our approach for identifying rural districts, our sample of states, the two federal programs we analyzed, and our fieldwork methodology.

DEFINING RURAL

Most of us have a mental image of rural life, consisting of small, sparsely settled communities located far from the noise and pace of the city. If asked to classify specific places as either rural or nonrural, we would probably have little difficulty in most cases. The problem arises in developing analytic categories that can be used, at a distance, to classify communities with which we are unfamiliar. For the purposes of this study, we accepted that no perfect definition of rural exists and decided to experiment with a number of alternative definitions to see how sensitive the results of our analyses would be to the changes in definition. This section describes the four definitions we used to classify districts as rural.[1]

The first definition classifies as rural all school districts that lie in nonmetropolitan counties as defined by the Office of Management and Budget (OMB), i.e., counties that are not part of some SMSA. An SMSA, as defined by OMB, consists of a county with a city of at least 50,000 population plus the surrounding counties that are integrated into the economic life of that city. In other words, large cities (50,000 or more residents) and their suburbs are classified as metropolitan; the rest of the country is classified as nonmetropolitan.

As noted above, earlier analyses of federal funding patterns have used nonmetropolitan status as a definition of ruralness. While it seems reasonable to consider all school districts within SMSAs as nonrural, because they are in counties that are tied in to the life of a major city, the converse is not always so. That is, school districts outside SMSAs may not always conform to our vision of rural, since they may be in cities as large as 50,000 population. A finer-grained definition is needed

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[1]Our data on district characteristics came from four sources. The Fifth Count of the 1970 Census, which is configured by school districts, provided demographic data such as size of population, percentage of district residents living in places defined as rural by the Census Bureau, and poverty figures. Unfortunately, the Census Bureau reports such demographic data only for school districts with enrollments over 300 students. This means, of course, that these data are missing for many of the very districts we are most interested in—the small, rural ones. (In California, for example, about 400 of the 1037 school districts lack these demographic data. This precluded our performing, for California, a district-level analysis comparing funds received by districts with different percentages of rural population.)

We also used the National Center for Education Statistics ELSEGIS-School District Universe Tape for 1976-77, extracting data on school district average daily membership (ADM) and metropolitan status (urban, suburban, nonmetropolitan). The third and fourth sources of data allowed us to code districts on two of the definitions of ruralness described in this section. The *Municipal Year Book 1976* provided us with a list of all counties containing cities of population 10,000 or larger. Data on sparsity/metropolitan adjacency status came from a classification of counties developed by demographer Calvin Beale of the U.S. Department of Agriculture.

to distinguish among categories of nonmetropolitan communities of widely differing size.

We have run analyses using three such finer-grained definitions. Two of these definitions distinguish *among* nonmetropolitan counties, classifying some as rural and others as nonrural and identifying as rural all school districts in the rural counties. The third definition distinguishes among school districts within a given nonmetropolitan county, on the basis of the percentage of residents meeting the Census Bureau's definition of rural (see Table 1).

Table 1

NONMETROPOLITAN COUNTY TYPE[a]

4.	Urbanized, adjacent: counties contiguous to SMSAs and having 20,000 or more urban residents, 1970
5.	Urbanized, not adjacent: counties not contiguous to SMSAs and having 20,000 or more urban residents
6.	Less urbanized, adjacent: counties contiguous to SMSAs and having 2500 to 19,999 urban residents
7.	Less urbanized, not adjacent: counties not contiguous to SMSAs and having 2500 to 19,999 urban residents
8.	Rural, adjacent: counties contiguous to SMSAs and having fewer than 2500 urban residents
9.	Rural, not adjacent: counties not contiguous to SMSAs and having fewer than 2500 urban residents

[a]In this classification scheme, categories 0 through 3 (not included in this table) describe metropolitan counties in decreasing order of size.

The first of the two county-based definitions, which we call the "minimally urbanized" definition, considers as rural only those nonmetropolitan counties that contain no city with a population of 10,000 or more. Under this definition, all school districts in such minimally urbanized counties are classified as rural. If, on the other hand, a nonmetropolitan county has a city of at least 10,000, all of the school districts in that county are deemed nonrural. Admittedly, 10,000 is an arbitrary cutoff point. This definition thus excludes some school districts located in the outlying reaches of a county whose only sizable population center has just over 10,000 residents. Nevertheless, we can be sure that the places included as rural under this definition truly are in minimally urbanized settings, and we would rather err on the conservative side than contaminate our definition by including some urbanized districts.

The second county-based definition uses a scheme developed by the U.S. Department of Agriculture for classifying nonmetropolitan counties on a scale of urban influence that reflects both the degree of urban concentration within the county and its proximity to a metropolitan area (U.S. Department of Agriculture, 1974). Nonmetropolitan counties are assigned to one of six categories depending on their number of urban residents[2] and whether or not they are adjacent to an SMSA.

[2]Residents are classified as "urban" if they live in an incorporated or unincorporated place or township of 2500 or more inhabitants.

Table 1 defines each of the six nonmetropolitan county types according to this scale, which we refer to as the Beale Scale, after its developer Calvin Beale

An advantage of this Beale classification scheme, for our purposes, is that it allows us to conduct analyses that separate out two dimensions of ruralness—the sparseness of population settlement within the county and remoteness from metropolitan centers. In the analysis reported in Sec. III, Tables 4 and 6, we wanted to see how geographically isolated nonmetropolitan districts fared in terms of Title IVB and IVC funding. Our third definition of rural, therefore, consists of school districts in counties of types 7 and 9—that is, nonmetropolitan counties having fewer than 20,000 urban residents that are *not adjacent* to an SMSA.[3] We refer to this as the "remote county" definition.

Our fourth definition classifies school districts within nonmetropolitan counties according to the percentage of the district's population meeting the Census criterion of rural: persons residing in communities of fewer than 2500 residents. Under this definition, we consider as rural only those nonmetropolitan school districts with 100 percent rural population. In other words, we would consider a district to be rural only if all of its students were drawn from communities no larger than 2500. Note that this is the only one of our four definitions that relies on school-district-level rather than county-level data. We refer to it as the "sparsely settled district" definition. As noted above, however, census data on districts with enrollments below 300 are not reported, which prevented our classifying some districts on this definition.

SAMPLE OF STATES

In selecting a sample of states for this analysis, we wanted states that varied in degree of ruralness (predominantly rural, mixed, predominantly urban), type of school district organization (county or local districts), and region of the country. Previous research had suggested that the flow of federal funds to rural areas might relate to the urban or rural character of the state. We also felt that comparing states with county-wide rural districts to those with local rural districts might help to separate out the effects of small school district size—and its accompanying administrative staff limitations—from possible effects of ruralness per se.

The states we selected are Vermont, North Carolina, Georgia, Kansas, Maryland, and California. Table 2 displays some basic information about these states. Table 3 shows the number and percentage of school districts and students in our sample states that qualify as rural under each of the four definitions just described.

SAMPLE OF PROGRAMS

The two federal programs we selected for the FY 1977 analysis are the two parts of Title IV of the Elementary and Secondary Education Act of 1965, as

[3]Counties of type 5 are also not adjacent to SMSAs. Despite their geographical remoteness, however, they have a relatively high level of internal urbanization (20,000 or more urban residents) and we did not, therefore, choose to include them in this definition of rural.

Table 2

CHARACTERISTICS OF SAMPLE STATES

Characteristic	State					
	Vermont	North Carolina	Georgia	Kansas	Maryland	California
Region	Northeast	South	South	Midwest	Mid-Atlantic	West
Urban/rural status[a]	Rural	Rural	Mixed	Mixed	Urban	Urban
Percentage rural Population	68	55	40	34	23	9
Rural population[b]	301,441	2,796,891	1,821,501	761,708	918,464	1,817,089
Total population	444,732	5,082,059	4,589,575	2,246,578	3,922,399	19,953,134
School district organization	Local districts	Mixed city and county districts	Mixed city and county districts	Local districts	County districts	Local districts
Number of school districts[c]	273[d]	145	188	307	24	1,037[e]
Total average daily membership 1976-77[c]	104,609	1,165,964	1,068,854	442,537	870,974	4,682,839

[a]States have been assigned to these categories according to their overall percentage rural population. This assignment is somewhat arbitrary and illustrates how complex defining ruralness is. As shown in Table 3, if percentage of rural districts under various definitions were the criterion, there would be reason for classifying Kansas as "rural" and North Carolina as "mixed."

[b]1970 Census.

[c]ELSEGIS-Public School Districts Tape, 1976-77.

[d]Vermont's 273 local school districts are organized into 57 supervisory unions.

[e]California also has 49 county school districts that serve as intermediate education agencies.

amended by Section 401 of the Education Amendments of 1974.[4] In FY 1977, Title IV, Part B, "Libraries and Learning Resources," provided funds to school districts for library books, instructional equipment and materials, guidance counseling and testing services.[5] Title IV, Part C, "Education Innovation and Support," provided funds for a wide range of locally proposed innovative educational projects as well as funds for strengthening state departments of education.

Title IVB and Title IVC are both state-administered federal programs and represent the two basic types of funding mechanisms in which we are interested—formula-based and grants competitions. In Title IVB, each state has discretion within federal guidelines for devising a formula for allocating funds among local

[4]Our source of funding data was the third (FY 1977) cycle of the Section 437 Data Tape, obtained from the U.S. Office of Education. Under the annual Section 437 data collection, each state department of education reports to the U.S. Office of Education (USOE) on all state awards of funds from each of two dozen federal education programs. In the FY 1977 report, each state was asked to report two figures for each district under each program: (1) what size grant (if any) that district had been awarded for FY 1977, and (2) how much it had expended out of awards (if any) from FY 1976 funds. We chose to base our analyses on the size of state grants for the upcoming fiscal year, rather than on district expenditures from the previous fiscal year, because it seemed to capture better what we were really interested in—how much the state gives to whom.

We should note, however, that even the grants data we decided to use are not free from problems. USOE's instructions for the 437 data collection request the following for each program: "For each grant made by the State in FY 1977, identification of the recipient agency and grant total amount" (USOE, 1977, p. 4). Conversations with state department staff—the people who fill out these forms—in several of our sample states, however, revealed confusion about whether "grant made by the State in FY 1977" means "grant made by the State in FY 1977 *from FY 1977 monies*" or "grant made by the State in FY 1977 *from all* monies, including carryover funds." Our strong suspicion is that this item is being interpreted differently across states and, in some cases, even across programs within the same state. In Vermont, we learned that the Title IVC grants reported on the 437 Data Tape for 1977 did not coincide with the state department's records of Title IVC project grants for that year. In this single case, we substituted the state data for the 437 data in our analyses.

[5]Title IV was amended in 1978 to remove the guidance counseling and testing component from Title IV, Part B, and establish it separately as Part D.

Table 3

DISTRIBUTION OF RURAL STUDENTS AND DISTRICTS UNDER ALTERNATIVE DEFINITIONS OF RURAL

Definition[a]	Number of Districts	Percentage of Districts	Number of Students	Percentage of Students
		California		
Nonmetropolitan county	397	38	353,999	8
Minimally urbanized county	157	15	83,682	2
Remote county	103	10	44,274	1
Sparsely settled district[b]	—	—	—	—
		Maryland		
Nonmetropolitan county	14	58	133,741	15
Minimally urbanized county	9	38	52,792	6
Remote county	7	29	45,374	5
Sparsely settled district	4	17	22,253	3
		Kansas		
Nonmetropolitan county	262	85	247,561	56
Minimally urbanized county	187	61	116,261	25
Remote county	172	56	126,767	29
Sparsely settled district	160	57	87,088	20
		Georgia		
Nonmetropolitan county	152	81	477,011	45
Minimally urbanized county	113	60	269,693	25
Remote county	79	42	200,784	19
Sparsely settled district	57	30	121,705	11
		North Carolina		
Nonmetropolitan county	117	81	681,054	58
Minimally urbanized county	68	47	339,414	29
Remote county	39	27	187,389	16
Sparsely settled district	43	31	172,504	16
		Vermont		
Nonmetropolitan county	273	100	104,609	100
Minimally urbanized county	117	43	32,062	31
Remote county	214	78	63,445	61
Sparsely settled district	253	93	67,783	65

[a]Nonmetropolitan county: School districts in counties outside SMSAs. Minimally urbanized county: School districts in nonmetropolitan counties with no place of 10,000 population or more. Remote county: School districts in nonmetropolitan counties with fewer than 20,000 urban residents that are not adjacent to an SMSA. Sparsely settled district: Nonmetropolitan school districts with 100 percent census rural population, i.e., drawing no students from communities greater than 2500.

[b]Because of the suppression of census data for small districts, these data are not available for California. Later tables reflect California analysis based on 100 percent rural *counties*. Of California's 58 counties, 7 are 100 percent rural, accounting for 12,179 or .26 percent of the state's student enrollment.

education agencies. In addition to providing a Title IVB allocation to every district on the basis of its general enrollment, states are charged to provide additional monies to districts for *high-cost* students and to districts that demonstrate high tax effort. States determine their own high-cost student factors. In FY 1977, thirty-one states, including five of the six in our sample (all but North Carolina), used population sparsity, small district size, or some similar criterion as a high-cost factor for which districts received a bonus allocation. By doing so, they presumably were addressing the needs of rural areas. Enrollment of low-income and non-English-speaking students were the two other most common high-cost factors in 1977 state formulas.

In Title IVC, school districts submit proposals to the state for innovative projects and, through a competitive process that varies from state to state, grants are awarded to some districts. At any given time, a district may have none, one, or several projects funded under Title IVC. The Section 437 data that we analyzed reflect total Title IVC funds received by a district in a given year. They do not tell us how many separate projects are represented, nor do they tell us whether the district applied unsuccessfully for Title IVC funds. Apropos of rural treatment under Title IVC, it is worth mentioning that the Title IV legislation addressed this problem by instructing state departments of education to provide special assistance to districts that "for reason of small size or isolation have difficulty competing." States have devised different strategies for complying with this provision.

FIELDWORK METHODOLOGY

To investigate qualitative questions about the operation of Titles IVB and IVC in our sample states, we conducted telephone interviews and field visits to state departments of education, substate regional agencies, and local education agencies (LEAs). All state departments were contacted by telephone. In addition, three were visited in person. We also visited regional agencies and LEAs in four states (California, Georgia, North Carolina, and Vermont). State department and regional agency officials, as well as informed observers outside the formal system, suggested candidate LEAs for visits. We asked these informants to identify a number of rural districts that would reflect a range of demonstrated ability to attract and utilize federal funds. We did not want to see either all "model" districts, or all districts that had serious problems with federal funding.

All interviews were conducted using semi-structured interview protocols. With state department officials we explored issues related to the design of funding formulas (IVB), operation of grant competitions (IVC), and provision of technical assistance to LEAs. Regional agency staff were questioned about their role in facilitating the application process, administration, and implementation of federal programs. At the LEA level, interviews were conducted primarily with superintendents, principals, project directors and other administrative staff, e.g., curriculum supervisors involved with Titles IVB and IVC, probing their experiences with these federal programs. With respondents at state, regional agency, and local levels, in addition to discussing the specifics of Titles IVB and IVC, we also explored general concerns about the operation and usefulness of current federal education programs in rural areas. In particular, we asked our respondents to reflect on possible special needs of rural school systems that are not currently addressed by federal programs.

III. FEDERAL FUNDING PATTERNS FOR TITLES IVB AND IVC

This section analyzes the distribution of funds for the sample of six states and two federal programs. We will treat our basic concern with the share of federal funds that rural areas receive by analyzing a series of questions:

- How do states distribute federal funds between rural and nonrural school districts and within rural areas?
- Do funding patterns vary for the different types of states?
- How sensitive are the findings to alternative definitions of ruralness?
- Do funding patterns differ for the formula grant program Title IVB compared to the competitive grant program Title IVC?

FINDINGS FOR TITLE IVB

Table 4 presents the results of data analysis designed to examine the first three of the above questions. The table displays a measure of funding equality for the Title IVB program in FY 1977 using four definitions of rural in each of our six states. The measure used in the table is the following ratio:

$$\frac{\text{percent of program dollars to rural districts}}{\text{percent of state enrollment in rural districts}}$$

If this ratio equals one, then students in rural districts are receiving a share of federal program dollars proportional to their enrollment and equal to that received by students in nonrural districts. For example, if 30 percent of a state's students attend school in rural districts and rural districts receive 30 percent of program funds, the ratio in Table 4 would equal one. If the ratio is less than one, rural students are being shortchanged; if the ratio is greater than one, they are getting more than their proportional share of the funds.[1] This summary ratio reflects the overall treatment of all rural districts and there may be considerable variation among rural districts. That is, while all rural districts combined may be receiving funds in proportion to their share of the state's enrollment, some rural districts may be getting more than a proportional fair share and others less. We return below to this issue.

The first definition of rural in Table 4—nonmetropolitan counties—shows little difference across the states with ratios around the equal share level of 1.00. The low is Kansas with a ratio of .99 and the high is California with a ratio of 1.19. The same is true of all our definitions of rural. In FY 1977, rural districts were generally getting at least as much Title IVB funds per enrolled student as nonrural districts,

[1]This equal share ratio is equivalent to the ratio:

$$\frac{\text{dollars per enrolled student in rural districts}}{\text{dollars per enrolled student in the state}}$$

We will use both the "equal share" ratio and the "dollars per enrolled student" ratio in this report.

Table 4

RATIOS OF PERCENTAGE RURAL SHARE OF TITLE IVB FUNDS TO PERCENTAGE RURAL ENROLLMENT (FY 1977)

Definition of Rural Districts	California	Maryland	Kansas	Georgia	North Carolina	Vermont
Nonmetropolitan county	1.19	1.10	.99	1.04	1.16	(a)
Minimally urbanized county[b]	1.23	1.35	1.00	1.22	1.26	1.40
Remote county[c]	1.30	1.19	.99	1.21	1.31	1.07
Sparsely settled district[d]	—	1.37	.98	1.50	1.36	1.22

[a]All counties in Vermont are nonmetropolitan.

[b]School districts in nonmetropolitan counties with no community of 10,000 population or more.

[c]School districts in nonmetropolitan counties with fewer than 20,000 urban residents that are not adjacent to an SMSA.

[d]Nonmetropolitan school districts with 100 percent rural population, i.e., drawing no students from communities greater than 2500. Because of the suppression of census data for small districts, this analysis could not be carried out for California. The ratio for the seven *counties* in California with 100 percent rural population is .83.

regardless of whether rural districts are thought of as being in minimally urbanized counties that have no community greater than 10,000 population, in remote counties not adjacent to metropolitan areas, or in sparsely settled areas. This finding holds for the urban states (California and Maryland) as well as the rural states (North Carolina and Vermont) and those states having an intermediate rural/urban status (Kansas and Georgia).

The nature of the state Title IVB funding formulas explains why rural districts receive a higher allotment per student enrollment. Each state uses a different allocation formula within the broad guidelines established by the ESEA Title IV regulations. With the exception of Vermont, which awards only 40 percent of its state allotment on the basis of district enrollment, the states in our sample distribute approximately 70 percent of their funds on an enrollment basis with additional funds provided for high tax effort districts or high-cost children. The high-cost factors are defined differently by the states, but they generally work to the advantage of rural districts either explicitly or implicitly. For example, Maryland's high-cost factor explicitly includes children enrolled in *small* school districts (which are mainly rural); this adjustment for small size is one reason why rural districts receive more per student than nonrural districts. In contrast, North Carolina defines high-cost children solely in terms of poverty criteria and does *not* explicitly include an adjustment for rural areas. Nevertheless, North Carolina's rural districts receive a greater proportionate share of Title IVB funds because of the high correlation across districts (.47) between percentage in the poverty class and percentage rural in North Carolina.

The findings from Table 4 are reinforced by a further division of the data within nonmetropolitan areas. Table 5 compares, for nonmetropolitan counties only, the overall funding per student of more rural districts to that of less rural districts. Once again, the high-cost factors work in the direction of giving the more rural districts a higher per student funding of the Title IVB allotment than other nonmetropolitan districts, and this funding holds by and large for all definitions and across all our sample states.

Table 5

TITLE IVB DOLLARS PER STUDENT IN NONMETROPOLITAN DISTRICTS
(FY 1977)

Nonmetropolitan Districts Located in:	California	Maryland	Kansas	Georgia	North Carolina	Vermont
Urbanized county (with a community of 10,000 residents)	3.18	2.94	3.14	3.53	3.13	2.42
Minimally urbanized county (with no community of 10,000 residents)	3.29	4.23	3.18	5.39	3.71	4.11
Urbanized county (with at least 20,000 urban residents)[a]	3.16	3.07	3.14	3.57	3.31	2.49
Less urbanized county (adjacent to SMSAs, fewer than 20,000 urban residents)[b]	2.90	3.88	3.18	4.22	3.32	3.20
Remote, less urbanized county (*not* adjacent to SMSAs, fewer than 20,000 urban residents)[c]	3.64	3.71	3.17	5.31	3.84	3.59
Less sparsely settled district (<100% census rural)	(d)	3.29	3.17	3.89	3.21	1.89
Sparsely settled district (100% census rural)	(d)	4.28	3.12	6.59	4.05	3.52
State average	2.68	3.13	3.19	4.40	2.94	2.93
Nonmetropolitan average	3.18	3.45	3.16	4.58	3.42	2.93

[a]Beale categories 4 and 5.

[b]Beale categories 6 and 8.

[c]Beale categories 7 and 9.

[d]Because of the suppression of census data for small districts, this analysis could not be carried out for California.

Thus, on the basis of data from these six states, Title IVB formulas do not seem to be biased against rural districts. A note of caution is in order lest our findings be misinterpreted to mean that rural districts are unfairly advantaged in Title IVB. To provide a particular learning resource or service, a small school or district often incurs a higher *per student* cost than a large school or district.[2] Such diseconomies of small scale provide a basis for arguing that small rural schools or districts should in fact receive a larger share of Title IVB funds than their enrollment warrants. The fact that many states include small district size or population sparsity as a high-cost factor in their Title IVB formulas suggests they recognize, and are attempting to compensate for, such diseconomies of small scale. To establish whether existing small school factors adequately compensate for higher rural costs would require an analysis of the relative per student costs across different types of districts for the sorts of things Title IVB purchases, which is beyond the scope of this study. Section IV discusses further diseconomies of small scale and other special rural circumstances.

FINDINGS FOR TITLE IVC

An entirely different picture emerges when we turn from the formula grant program in Title IVB to the competitive grant system in Title IVC. Table 6 presents the proportionate share ratios for the allocation of FY 1977 Title IVC funds in each of our sample states for the four definitions of rural. Once again, if the ratio is less than one, then rural districts are receiving less than a proportionate share of the funds based on their student enrollment.

Using the least refined definition, the nonmetropolitan county, Table 6 shows ratios at or about 1 for all the states. However, the results for the other definitions reveal variation across states. California, Kansas, and Vermont have ratios generally below 1, whereas Maryland, Georgia, and North Carolina have ratios above 1. In other words, rural districts in the former states receive Title IVC funds that are below and, in some cases, considerably below the proportional amount received by nonrural districts; the reverse holds for the latter states.

Table 7, which shows the Title IVC funds per student for different definitions of ruralness within nonmetropolitan areas, provides more detailed evidence supporting the same finding. At this finer-grained level also, we see that the different states reflect different balances between rural and nonrural Title IVC funding.

In California, for example, the average Title IVC dollars per student across the state is $2.60 and the average across nonmetropolitan areas is $2.86 (yielding the 1.10 ratio of nonmetropolitan to state averages shown in Table 6). Focusing only on nonmetropolitan districts, we see that California districts in the twenty-one minimally urbanized counties having *no* community of 10,000 residents received only $.39 per student from Title IVC compared to $3.63 per student in districts in

[2]For example, a film projector costs the same amount whether it serves 20 students or 500, but the per student purchase cost is obviously much higher in the former case. So, in effect, a program that provides the same number of dollars per student for every student buys less in a 200 student rural district than in its larger urban or suburban counterpart.

Table 6
RATIOS OF PERCENTAGE RURAL SHARE OF TITLE IVC FUNDS TO PERCENTAGE RURAL ENROLLMENT (FY 1977)

Definition of Rural Districts	California	Maryland	Kansas	Georgia	North Carolina	Vermont
Nonmetropolitan county	1.10	3.41	0.99	1.51	1.26	(a)
Minimally urbanized county[b]	0.15	3.75	0.77	1.54	1.61	.73
Remote county[c]	0.12	4.34	0.88	1.51	1.10	0.86
Sparsely settled district[d]	—	1.37	0.37	2.17	1.62	1.04

[a]All counties in Vermont are nonmetropolitan.

[b]School districts in nonmetropolitan counties with no community of 10,000 population or more.

[c]School districts in nonmetropolitan counties with fewer than 20,000 urban residents that are not adjacent to an SMSA.

[d]Nonmetropolitan school districts with 100 percent rural population, i.e., drawing no students from communities greater than 2500. Because of the suppression of census data for small distr ..s, this analysis could not be carried out for California. The ratio for the seven *counties* in California with 100 percent rural population is .59.

more urbanized counties (which are nonetheless nonmetropolitan). Similarly, using another definition of rural, California districts in remote, less urbanized counties received $.32 per student, whereas districts in the urbanized nonmetropolitan counties having at least 20,000 urban residents received more than ten times as much per student ($3.71).

It is also important to note that both the county's population size and its relative geographic remoteness affect its share of Title IVC funds. Thus, districts in California's less urbanized counties (those with fewer than 20,000 urban residents) received less than one-third of the per student funding for districts in the more urbanized counties ($1.07 compared to $3.71) if they were adjacent to an SMSA and less than one-tenth as much if they were not adjacent to an SMSA. Indeed, districts in relative isolation—i.e., not in a county adjacent to an SMSA—tend to be at a competitive disadvantage in receiving a proportionate share of Title IVC funds in less urbanized situations for almost all our sample states, as Table 8 suggests.

Returning to the patterns shown in Table 6, California and Kansas provide fewer Title IVC funds to their more rural districts than one would expect on the basis of rural student enrollment, particularly when contrasted to Georgia and North Carolina. Why is this the case? On the basis of our quantitative analysis, it appears that the disproportionately small share of Title IVC funds received by rural districts in California and Kansas is a side effect of those states' concentrated funding strategy.

Let us explore this hypothesis. Each state chooses, explicitly or implicitly, a strategy for awarding grants from its fixed sum of Title IVC funds. The funding strategy intrinsically involves a tradeoff between concentrating funds in fewer places and spreading grants to more places. A state choosing to concentrate funding will be electing for a more competitive award system (i.e., in a fair competition, the probability of any given district receiving a grant would be lower if fewer grants were available). In FY 1977, California and Kansas chose to concentrate their Title

Table 7

TITLE IVC DOLLARS PER STUDENT IN NONMETROPOLITAN DISTRICTS
(FY 1977)

Nonmetropolitan Districts Located in:	California	Maryland	Kansas	Georgia	North Carolina	Vermont
Urbanized county (with a community of 10,000 residents)	3.63	5.01	3.58	3.59	2.42	3.86
Minimally urbanized county (with no community of 10,000 residents)	0.39	5.89	2.32	3.74	4.27	2.53
Urbanized county (with at least 20,000 residents)[a]	3.71	2.79	2.88	1.23	1.89	4.57
Less urbanized county (adjacent to SMSAs, fewer than 20,000 urban residents)[b]	1.07	8.75	4.23	4.76	4.99	2.43
Remote, less urbanized county (*not* adjacent to SMSAs, less than 20,000 urban residents)[c]	0.32	6.81	2.67	3.68	2.91	2.96
Less sparsely settled district (<100% census rural)	2.91[d]	5.36	4.13	3.14	3.23	3.18
Sparsely settled district (100% census rural)	1.52[d]	5.32	1.15	5.25	4.44	3.61
State average	2.60	1.57	3.02	2.42	2.65	3.45
Nonmetropolitan average	2.86	5.36	2.99	3.68	3.35	3.45

[a]Beale categories 4 and 5.

[b]Beale categories 6 and 8.

[c]Beale categories 7 and 9.

[d]Computation based on county (rather than district) percentage of rural residents.

Table 8

TITLE IVC FUNDS PER STUDENT IN LESS URBANIZED NONMETROPOLITAN COUNTIES
(Population sparsity vs. geographic isolation)

	California	Maryland	Kansas	Georgia	North Carolina	Vermont
Districts in counties with 2500 to 19,999 urbanized residents that are:						
Adjacent to SMSAs (Beale 6)	0.81	7.63	5.02	4.81	4.44	2.43
Remote, *not* adjacent to SMSAs (Beale 7)	0.35	8.91	3.74	3.88	2.60	3.54
Districts in counties with *fewer* than 2500 urbanized residents that are:						
Adjacent to SMSAs (Beale 8)	2.63	10.24	0.00	4.47	8.49	(a)
Remote, *not* adjacent to SMSAs (Beale 9)	0.00	0.00	0.00	3.06	3.57	1.55
State Average	2.60	1.57	3.02	2.42	2.65	3.45
Nonmetropolitan Average	2.86	5.36	2.99	3.68	3.35	3.45

[a]No districts fall in this category.

IVC funding to a greater extent than other states in our sample. Thus California and Kansas, respectively, awarded grants to 14 percent and 6 percent of their districts or other administrative units compared to 44 percent and 53 percent for North Carolina and Georgia.[3] The larger numbers of districts in California and Kansas undoubtedly account partly for this discrepancy, but it is also the case that California and Kansas, on the average, provided more money to those districts receiving Title IVC funds than did Georgia and North Carolina.

In FY 1977, only 18 of Kansas' 307 districts were funded by Title IVC. Of these, six received planning grants of $3000, designed to support development of full-scale proposals for larger projects. The remaining twelve districts received funds ranging from $17,500 to $440,000 (in Wichita, the largest city), with an average of $110,000 per district (district totals in all states may represent funding for more than one Title IVC project). In FY 1977, 150 of California's 1086 districts (including 21 of its 49 intermediate county districts) received funds from Title IVC. These awards ranged from $1579 to $1,900,000 (in Los Angeles), with the median funded district receiving about $84,000. In contrast, Georgia awarded Title IVC funds to 99 of its 188 districts, with levels of funding ranging from $5000 to $268,000; the median funded district received approximately $26,000. And 64 of North Carolina's 145 (county-wide) districts received Title IVC awards ranging from $5000 to $160,000, with the median district receiving about $47,000.

Several reasons may explain why a more competitive grant system (which awards a smaller number of relatively large grants) can work against rural districts. First, rural districts may be less likely to apply for a Title IVC grant. For example, despite the considerable effort California's State Department of Education expends in encouraging districts to apply for funding, 58 percent of eligible LEAs have not applied for Title IVC funds in the last five years (California State Department of Education, 1978), and most rural districts fall in this group. Rural districts may be less likely to apply because of their isolation (as suggested earlier, districts in counties not adjacent to SMSAs receive proportionately less funding), which may make them less aware of funding opportunities and less accessible to state staff who offer technical assistance in proposal preparation. Moreover, rural districts often lack the administrative skill, experience, resources, and machinery to apply and may be skeptical about their chances of winning. Of course, rural districts also may choose not to apply for Title IVC in greater proportion than urbanized districts because they are not so interested in innovations.

In addition to the reduced likelihood of application, rural districts may in fact fare less well in competition once they have applied. We simply do not now have sufficient data to test this hypothesis empirically. Two reasons are generally advanced in claims that rural districts are at a competitive disadvantage after application. First, they may produce lower "quality" proposals because of their administrative deficiencies. Second, their proposals may be judged to have less merit because of an urban bias, often implicit, among proposal reviewers. For example, Vermont uses a criterion of innovativeness in evaluating Title IVC appli-

[3]California has 49 special county districts, of which many serve as intermediate education agencies in rural areas. Twenty-one of these county districts received Title IVC grants in FY 1977. Thus, the number of local districts benefiting from Title IVC projects was greater than the 14 percent of districts administering grants. These county grants were included in our calculations, which show a disparity between per capita grants to rural and nonrural areas.

cations, which requires that a proposed project represent an educational practice that is new to the *state*, not just to the district itself (which is how innovation is defined in some other states). Because rural districts tend to be slow adopters of innovations, as research on diffusion informs us, Vermont's innovation test tends to work against more isolated, rural districts.[4]

An aspect of state funding strategies, not revealed in the Section 437 data we analyzed, has important implications for rural districts. We refer to the existence of different categories of Title IVC grants, in particular, to the distinction between "developmental" grants and "adoption/adaptation" grants. The former type of grant supports projects intended to *develop* an innovative solution to an educational problem, often with an eye toward future dissemination to other districts. The latter covers costs of implementing an educational project that has been pioneered elsewhere and evaluated as successful and transferable through a process of national validation. Typically, developmental grants are much larger than adoption/adaptation grants, since the former involve "starting from scratch," whereas the latter involve the start-up costs (e.g., staff development, travel, equipment, materials) of replicating a practice that has already proved effective in another setting. It follows, therefore, that the greater a state's emphasis on expensive developmental projects, the more concentrated will be its use of Title IVC funds. Also, the proposals required for developmental grants tend to be longer and more complicated.

It seems plausible that rural districts, with limited administrative resources available both for proposal-writing and for project implementation, would be more interested in and likely to obtain small adoption/adaptation grants than large developmental grants. Indeed, our analysis suggests that rural districts fare better in states that emphasize small adoption/adaptation grants. In FY 1977, for example, Kansas did not offer any adoption/adaptation grants. (It presently sets aside $50,000 out of approximately $1.2 million in Title IVC funds for adoption/adaptation grants with a ceiling of $2500.) Kansas' clear preference for investing in a small number of promising developmental projects was voiced by a state Title IVC official this way: "We don't have a political strategy of spreading IVC money around to all districts, as they do in some other states. Instead, we have a *narrow* approach, funding only districts that are looking down the road to deal with a real problem, especially in a way that might have applicability in other districts."

In FY 1977, California, another state where only a small percentage of districts received Title IVC funds, did offer adoption/adaptation grants (usually for $10,000 or less), but these represented less than 10 percent of its overall Title IVC budget.[5]

In contrast, Georgia devotes a larger share of its Title IVC monies to adoption/

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[4]Under the 1978 Education Amendments, the emphasis on innovation per se in Title IVC projects has been dropped, with local education agencies being charged, instead, to develop "activities designed to address serious educational problems in elementary and secondary schools." This change might be expected to help correct any de facto bias against rural districts in states that have been using a strict criterion of innovativeness such as Vermont's.

[5]In the past few years, California has been increasing the proportion of its Title IVC funds allocated to adoptions as opposed to developmental projects. In FY 1978, approximately $1 million of $5 million in new project grants (out of a total Title IVC budget of about $11 million) went for the smaller-sized adoption grants, and in FY 1979 this will double to $2 million. In FY 1978, the state reserved $150,000 of adoption funds for districts with enrollments below 1000. It also set aside $100,000 of general development project money for districts that were never before funded under the program. According to a member of California's Title IVC staff, this setaside encouraged districts that had not competed before to submit applications, and such districts captured 9 of the 41 new general grants that year (representing

adaptation projects than to developmental ones.[6] Since 1974, Georgia has operated its Title IVC adoption/adaptation program in an unusual way. Each district in the state is entitled to receive an adoption/adaptation grant of up to $15,000 once every two years, provided it satisfies certain minimal criteria. It must submit a proposal that reflects a systematic planning process involving a needs assessment and selection of a nationally validated project appropriate for meeting identified needs. Inadequate proposals may be returned to the district with suggestions for revision. Under this system, districts are not in fact competing against each other, as in most states, but rather against an absolute standard. In the course of the six funding cycles since this system was instituted, every district in the state has had at least one adoption, 75 percent have had two or more, and approximately 50 percent have had the maximum three for which they were eligible.[7] Judged on the basis of dollars per student, this program actually favors small rural districts, since they receive the same $15,000 for adoption purposes as do large urban districts.

North Carolina offers several categories of small-sized Title IVC grants that involve relatively brief proposals (maximum twelve pages). In addition to adaptor grants (that average $9000), there are six-month study grants to research alternative solutions to educational problems (average $6000) and grants to assist LEAs to identify and meet leadership and management practice needs (average $15,000). State Title IVC staff feel that the availability of these smaller-sized grants has clearly helped the state's smaller rural districts capture a larger share of Title IVC funds,[8] as have the efforts of Title IVC facilitators operating out of the state's eight Regional Educational Centers. (Section IV discusses the role of regional agencies in assisting rural districts to deal with federal programs.)

Vermont's program of Title IVC mini-grants, with a ceiling of $1500, makes funds available for small special projects, sometimes reflecting the efforts of a single teacher. Unlike the strict criterion of state-wide innovativeness required for developmental projects in Vermont, a mini-grant merely has to involve a practice new to its supervisory union (a group of LEAs served by the same superintendent). While Vermont's less urbanized and remote districts have enjoyed relatively

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between $300,000 and $400,000, considerably more than the $100,000 setaside). California's increasing use of smaller adoption grants and its special setaside provisions for small and never-before-funded districts may be improving the relative position of rural districts in terms of Title IVC funding over that reflected in the FY 1977 data we analyzed.

[6]Out of a total IVC budget of approximately $3 million, Georgia spends $1.25 million on adoptions as compared to $1 million on developmental projects. Another $500,000 supports training activities by staff of validated projects and $200,000 is divided equally among 16 regional agencies that facilitate systematic planning in LEAs. Georgia is currently funding five large Title IVC curriculum development grants, one of which is held by a smaller rural system.

[7]We remind the reader that adoption of a project does not necessarily guarantee effective implementation or sustained improvement in the system. One possible drawback of a system that makes grants available to all districts, almost automatically, is that some districts may apply for funds opportunistically—simply because they are available. They may then go through the implementation process in a pro forma way, with little real local commitment to solving an identified problem (see Berman and McLaughlin, 1977).

Georgia's "Educational Improvement Concept," which outlines the steps of a systematic planning process, is designed to avoid such token improvement efforts, but state Title IVC officials recognize that districts vary in their commitment to this process. One state staff member noted that without the efforts of regional agency staff, who in a few cases even select the project and write the proposal for the district, "many districts would not have any adoptions/adaptations." However, according to state officials 80 percent of adoption/adaptation projects survive the cessation of special project funding, i.e., are incorporated into the district's regular program.

[8]This is consistent with the data in Table 5, which show rural districts in North Carolina, however defined, capturing more Title IVC dollars per student than their nonrural counterparts.

greater success in obtaining these less competitive mini-grants (as compared to larger developmental grants), they are nevertheless somewhat disadvantaged in terms of overall Title IVC funding, as revealed in Table 6.

Rural educators we spoke with consistently emphasized the appropriateness and value of such limited-sized educational improvement grants for small rural districts. Expensive innovative projects usually involve the hiring of special staff whose salaries are difficult to absorb in the local budget once federal funding expires. This reality often spells doom for innovative projects in urban and suburban districts (Berman and McLaughlin, 1977) but can be even more of a problem in small rural districts, where there is less likely to be a new federal project—with attendant job opportunities—to replace each discontinued one. As one Vermont State Department official commented: "We have to get away from large IVC projects because they simply can't survive."

Different Title IVC funding strategies involve different types of potential payoffs. Concentrated investment in a small number of costly developmental projects, as in Kansas, may yield valuable new educational practices that can later help other districts solve their problems. Alternatively, Georgia's system of spreading the wealth, through adoption grants or other types of small projects, is more equitable in the short run, providing a greater number of districts with the opportunity to implement some type of program improvement. We are not in a position to evaluate the tradeoffs between these two policies in the abstract. We have pointed out, however, that given the prevalent conception of development projects as large and expensive, rural districts tend to receive a smaller share of Title IVC funds in states that emphasize development activities.

An issue worthy of consideration in future research and policy discussion is whether the present configuration of Title IVC encourages rural districts, in some cases, to adopt projects that were developed and validated in other types of settings and are therefore less than fully appropriate for rural needs. Doubtless there are some types of innovative projects—techniques for individualizing reading instruction, for example—that are as applicable in a country classroom as a city one. In these cases, it probably is more efficient to allow larger urban and suburban districts, with the facilities to experiment and the organizational slack to risk failure, to take the lead in the developmental process.

However, there may be other types of projects—systems for staff development or environmental education curricula come to mind—where rural conditions are sufficiently unique as to make projects imported from nonrural settings unlikely to succeed. In such cases, Title IVC grants in the $10,000 to $15,000 range (the amount usually provided for an adoption) might be more valuable to rural districts if they were allowed to come up with indigenous solutions to local problems rather than searching for pre-tested projects. Support for such smaller scale developmental efforts, which could be managed by rural districts with limited administrative staff, could also potentially result in a body of peculiarly rural educational practices and materials appropriate for future dissemination to other rural districts.

In summary, in contrast to Title IVB, Title IVC funding patterns vary across states when finer-grained definitions than nonmetropolitan are used. Isolated districts tend to receive less funding in proportion to their enrollment even in cases where the overall funding pattern favors rural areas. The more competitive systems in our small sample disburse a disproportionately low share of Title IVC funds

to rural districts, particularly under stricter definitions of rural. Rural districts seem to fare better in states that invest substantially in categories of small grants—such as adoption projects—than they do in states that fund mostly large developmental projects.

IV. SPECIAL NEEDS OF RURAL DISTRICTS

The preceding section examines whether federal Title IV funds are distributed fairly according to the standard of equal funding per student. The results suggest that Title IVB funds are fairly distributed and Title IVC funds have some inequities in their distribution. But that analysis just treats the allocation of equal funds without taking into account how needy rural areas may be. A recent report by the Department of Agriculture suggests that rural residents have serious educational disadvantages. It concluded that rural/nonmetropolitan residents, as compared with urban/metropolitan residents, are more likely to: attend public schools that spend less for instruction, enroll in school later, progress through school more slowly, complete fewer years of school, score lower on national assessment tests, and become functional illiterates. Conversely, rural/nonmetropolitan residents are less likely to: attend public schools with supportive services and personnel, complete four years of school, plan a college education, enter college, receive vocational training, or enroll in adult education programs (Fratoe, 1978).

There is, in short, a prima facie case that rural districts, particularly isolated districts in sparsely populated counties, may have severe, unmet educational "needs," whether judged in absolute terms or in comparison with the average urban or suburban district. In those cases where rural districts are relatively deprived, the provision of equal per student funds to rural and nonrural districts might be judged to be "unfair" for it would leave the disparity between them unaltered. In other words, a systematic assessment of the fairness, as well as the effectiveness, of federal policy in this area requires that needs or disadvantages of rural districts be determined and compared to nonrural districts.

At a conceptual level, it is easy to describe how such a needs analysis might be done. First, the needs of students, the cost to districts of meeting needs, and the district's ability to pay for the cost would be defined. Second, operational measurements of the definitions of needs, costs, and ability would be developed and applied so that appropriate data could be collected. Finally, rural and nonrural districts could be compared according to their relative ability to meet their needs. Thus, policymakers would have the information to judge whether a compensatory formula to aid rural districts would be needed and how it might be constructed. (It is, of course, quite another step to decide whether a compensatory policy would be desirable and feasible.)

Such an analysis is difficult to carry out at the level of the school system, however.[1] We concluded, after examining the work of analysts who have attempted needs analysis, that needs, costs, and ability are extremely slippery concepts to define and even harder ones to measure. These difficulties are so substantial that the time, money, and research energies required to conduct such a comprehensive study precluded any attempt to do so at this point.

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[1]As Sec. I discusses, the major work on needs analysis has been in developing compensatory formulas based on the economic status of students. These analyses apply to rural as well as nonrural students, not directly to system needs, which is our focus.

We believed, however, that a simpler approach might yield preliminary research findings on which sensible, short-run policy recommendations might be based and more extensive research on the needs problem might be designed. In particular, we reasoned that an appropriate and feasible first step for this pilot study was to identify conditions of rural schooling that might put rural school districts at a relative disadvantage in using federal programs as well as in developing and maintaining an acceptable level of schooling. If these conditions existed and could be identified, policymakers could be given a more specific grasp of rural problems than the usual broad gauged arguments about how needy rural areas are on the average. In addition, federal and state officials could be informed about particular strategies that might help ameliorate specific needs. We hoped such exploratory information could be used to design future research that would determine how extensive school system needs are in rural areas and how they are distributed in different states, regions, etc.

Thus, we decided to pursue the modest objective of identifying conditions of rural school districts that represent specific needs. By thus focusing on the rural areas, we had to forgo making direct comparisons with special needs and problems of nonrural areas.[2] Though such comparisons are essential to ultimate judgments about how fairly federal policy deals with rural districts in comparison with urban and suburban districts, we felt justified in thus narrowing our objectives for two reasons. First, our limited resources did not permit an analysis of both rural and nonrural needs. Second, the problems of certain rural areas may be great enough in absolute terms or relative to other rural areas (particularly ones that are less isolated or more populated) to merit policy initiatives independent of urban or suburban problems. Our data strongly suggest this is so.

Before continuing, we would like to emphasize that, despite our concern with identifying special needs and problems of rural districts, we recognize that many rural districts provide their clients with fine educational services despite such constraints. Small district or school size may impose certain limitations on the educational enterprise, but it also entails certain potential advantages—more personalized relationships among administrators, teachers, and students; closer ties with parents and community. Our hope is that our findings can assist federal and state policymakers to take actions that would enable rural districts to solve some of their present problems while building on their unique strengths.

IDENTIFICATION OF DISTRICT NEEDS

As described in Sec. II, we conducted fieldwork in state departments of education, LEAs, and regional offices to gather data about how practitioners, officials,

[2]There is a sizable literature that argues that urban districts deserve disproportionate funding because of higher costs of education in urban areas (Callahan et al., 1973; Chambers, 1979; Chambers et al., 1976). One problem with these arguments is that some of the resources that cost more in urban than rural areas may in fact be higher quality resources. For example, while urban teachers receive higher salaries, they also have more experience, higher education, and more credentials than rural teachers (Tompkins, 1977). Our intention is to identify some factors that drive up costs in rural areas, not to argue that rural costs of education, overall, are higher than urban costs, which is a subject for analysis beyond the scope of this study.

and informed observers viewed the needs of rural areas. We concentrated on rural districts that met our stricter definitions of rural, in terms of population sparsity and isolation.[3] Our objective was to identify some characteristics of such rural districts that (a) hamper efforts to maintain adequate programs or to improve the quality of schooling and (b) might be amenable, either directly or indirectly, to federal policies.

During this exploratory investigation, we focused on the *systemic* needs of district organizations that arise because of small size and remoteness, rather than on the needs of students per se or of the population served by rural districts. It quickly became apparent, however, that the constraints imposed on an educational system by small size and remoteness were compounded in some of the districts we visited by high concentrations of poor and minority children and severe economic stagnation in the local community. We term these districts "stressed" rural districts to differentiate them from rural districts that are not in severely needy communities.[4] Though the systemic needs discussed below were found to varying degrees in most of the districts visited, they tended to represent more severe obstacles to maintaining adequate programs or to efforts to improve the quality of schooling in these more stressed districts.

We have grouped the special needs of rural districts into three categories: financial constraints, difficulties of attracting staff, and administrative limitations.

Financial Constraints

The financial status of any school district depends on the state's school finance laws, its ability to raise educational funds locally, and its eligibility for various categories of federal education monies. Though we did not conduct a systematic analysis of the complexities of school finance in our sample states, our conversations with rural educators did uncover certain common concerns about existing school finance patterns and unusual cost factors in rural districts.

If there was a single dominant theme of our fieldwork, a message that rural administrators sought time and again to convey, it was that allocation of funds on a per pupil basis places rural districts at a disadvantage. As explained in our discussion of Title IVB, a small rural school or district often incurs a higher *per student* cost to provide a particular learning resource or service, because of diseconomies of small scale. (We saw a good example of this in a small island school off the coast of North Carolina, with 100 students in grades K-12, that had just purchased a new duplicating machine; as its principal pointed out, the same machine could have adequately served a school five times as large, so their per pupil cost for purchasing it was much higher.) When state finance formulas allocate

[3]While the sample of districts we visited was limited, other rural educational research (Sher, 1977; Sher and Rosenfeld, 1977; Edgar, 1979) and conversations with experts in the field suggest that the conditions identified below are not uncommon among sparsely populated and isolated rural districts generally and especially among those serving disadvantaged populations.

[4]We wish to thank Jerry Fletcher for suggesting the term "stressed" to describe these districts. It was beyond the scope of this pilot study to measure in quantitative terms how stressed districts are. Such a hypothetical index might take into account such factors as the local tax base, community willingness to support educational expenditures, provisions of the state's school finance system, racial and socioeconomic makeup of the local community, and proximity to cultural and educational institutions.

funds on an equal per pupil basis without recognizing these higher per pupil costs, rural districts are forced to provide a more limited program than their more populous urban counterparts, unless they can compensate for the shortfall through local taxes, which poorer rural districts have difficulty doing.

Most states peg their contribution to local school budgets to the district's average daily membership, or attendance, though the mechanisms for allocating the state aid differ from state to state.[5] In two of the states we visited, Georgia and North Carolina, the state allocates teaching positions to districts on the basis of enrollment and pays for teacher salaries according to a state-established salary schedule. Local districts may, however, both provide supplemental teaching positions and supplement teachers' salaries out of locally raised funds. Typically, urban and suburban districts are better able to do so than rural ones.

For example, several of the rural districts we visited in these states had no locally supported teachers and offered none or only token salary supplements above the state base. Administrators in these districts spoke of the difficulties of running an effective, comprehensive program with limited staff. One superintendent bemoaned the fact that given the small enrollment of his district (about 850 children) and the state's allocation of funds for particular services on a per pupil basis, his system had not been able to generate sufficient funds to hire either a librarian or an elementary physical education teacher. Nor could the district afford an art teacher. Moreover, a decline in enrollment of twenty-three students the previous year had meant a loss of four teachers (out of a total of approximately fifty).[6] In larger districts, staff losses also cause problems, but there is often sufficient organizational slack to substitute comparable personnel and thereby minimize impact on the program. When a district such as this one operates so close to the margin, however, the loss of a single teacher can mean the elimination of an entire component of the curriculum. This superintendent reported that he had warned state officials: "If you cut me one more teacher I'll have to cut out business ed." He summarized his frustration with the existing school finance system this way: "To adequately fund small rural districts wouldn't take much money, but we need a *subjective* criterion. We need to stop playing the numbers game and figure out what are the basic requirements to run a school and then let the formula build from there."

In addition to financial constraints related to basic state school finance laws, for some low wealth rural communities, local resource limitations prevent schools from taking full advantage of state or federal programs that entail local matching requirements. For example, to qualify for federal vocational education funds, districts must contribute a portion of the costs from local dollars. Federal guidelines encourage states to vary the required local contribution to reflect local ability to pay. In

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[5]There is great variation among state school finance systems and many states have undertaken substantial reform in this area in the past decade, generally increasing the proportion of aid to schools from state sources. A recent review of developments in this field suggests that rural districts with low property wealth have generally benefited from these reform efforts (Tompkins, 1977).

[6]Because state allocation formulas were generally developed during periods of population growth, anomalous effects—to which small rural districts may be particularly sensitive—may result during periods of enrollment decline (see Berman and McLaughlin, 1978). In the instance described above, according to our informant, the state's allocation formula was designed to "project growth" and so adds extra staff in anticipation of new students, but conversely also "projects decline," and takes away teachers before the district actually loses the students. See Goettel and Firestine (1975) for a discussion of how state formulas may be adjusted to reduce such anomalous impacts of enrollment decline.

North Carolina, for instance, depending on wealth, districts must pay from 28 percent to 32 percent of the vocational education budget. North Carolina allocates vocational education staff on the basis of district enrollment, with a floor of 80 staff months (8 teachers) regardless of enrollment. However, we were told that some rural districts must relinquish part of this base allocation because they cannot afford the minimal 28 percent local share of the salaries. Several of our informants felt strongly that the range between minimum and maximum local contribution should be greater, to more accurately reflect disparities in districts' abilities to pay. A related example came from a county commissioner of a depressed rural county whose school district had sought federal recreation funds for a park—there were no parks in the county. Inability to meet the local matching requirements, however, precluded receiving a federal grant.

We want to emphasize that higher per pupil costs in rural districts are not restricted to the instructional program. One superintendent of a county-wide district noted that "all support systems—transportation, food services, building maintenance—cost more on a per pupil basis in rural areas." Rural districts often cannot afford to maintain the full retinue of support personnel, e.g., plumbers, electricians, carpenters, that one is likely to find in an urban district. Routine repairs therefore require the services of an outside contractor, often involving high travel costs, delays in obtaining parts or materials from distant suppliers, and so on.[7] In recent months, rising fuel costs have hit rural districts particularly hard, given their need to transport children long distances to school.

In sum, diseconomies of small scale, both in the instructional program and in the provision of various other services, as well as special cost factors related to geographic isolation and low population density, combine to create special financial constraints for some rural school districts that interfere both with the quality of their basic education program and their ability to avail themselves of special federal programs.

Difficulties of Attracting Staff

Administrators of some districts we visited expressed concern that their inability to offer teachers salaries comparable to those in urban and suburban districts reduced their ability to attract high caliber teachers to their districts, despite the fact that higher salaries in larger districts are usually offset to some extent by higher living costs in such communities. Beyond any financial barriers to acquiring good staff, however, they cited other factors that make attracting and retaining good staff a major problem for some rural districts.

Particularly for young, unmarried teachers, life in some remote rural communities holds little appeal. There are few opportunities for making social contacts, and what social life does exist takes place under the scrutiny of a small and often judgmental community that regards teachers very much as public figures. Hous-

[7]The prospect of greater efficiency in providing such services has been a traditional argument in favor of district consolidation. However, even consolidated rural districts, which can afford permanent service staff, incur higher maintenance and repair costs than geographically compact districts because of the time and expense required for travel between schools.

ing, while inexpensive, may be barely adequate and not readily available. Libraries, theaters, museums, restaurants are a long drive away.

The elementary school principal of one very poor southern district with virtually 100 percent black enrollment expressed frustration at the high rate of teacher turnover in his school. He was especially dismayed that the more talented beginning teachers, whom he works with and watches develop through their difficult first few years, typically move on to other districts as soon as a better job becomes available. He reflected: "There is nothing here to hold them." The difficulties of building a cohesive faculty with high morale under such circumstances seem obvious.

Interestingly, the superintendent of an adjacent county with very different racial composition (80 percent white, 20 percent black) reported: "We've been fortunate to be able to attract top notch teachers and don't have much turnover." Even this district, however, had been unable to find a speech therapist willing to accept a job in the district, despite the availability of special education funds to cover the salary. This situation should be particularly noted by federal policymakers, because many rural districts may be in the difficult position of trying to comply with new federal mandates to meet the educational needs of special groups (handicapped, bilingual) without being able to attract qualified specialists to work in their communities.

As we discuss at greater length later in this section, regional agencies in some states offer the services of consultants and special education teachers, who help compensate for the staffing gaps of rural districts. But, as one state department official noted, the same factors that make it difficult for local districts to attract highly qualified staff in isolated regions—such as limited access to educational and cultural institutions—militate against the regional agency's acquiring outstanding personnel. Thus the following ironic situation may result: Those districts that need help the most tend to be served by the weakest regional agencies.

Administrative Limitations

As displayed in Table 2, the administrative organization of school districts varies across the states we visited. California has many tiny rural districts (the median ADA of the state's 1000 school districts is about 800 students) with only one school; in such situations, the same person often serves as principal and superintendent, possibly also carrying out teaching responsibilities as well. Vermont's many small rural communities also have their own individual LEAs with elected school boards, but these local districts are organized into supervisory unions, with one superintendent providing administrative services for a group of local boards. In both Georgia and North Carolina, most school districts coincide with county boundaries. In Georgia, however, district superintendents are elected; in North Carolina, they are selected by the school board.

Such state variations in administrative structure and political arrangements have implications for the way rural schools are run, including their implementation of federal education policies and programs. A school principal in one Georgia district, for example, reflected on the operation of special federal programs in his county, given the superintendent's concern with reelection: "We at the school level would like to be more involved in writing federal projects, but they [central office

staff] don't always consult us. The superintendent's office is often more interested in the jobs a federal program can provide than in what it can do for the kids."[8] A member of the state department staff in Vermont regarded "the very poor quality of administration in rural areas" as perhaps the single greatest barrier to improving rural schools. She questioned the system of having lay school boards hire principals, noting: "The type of people hired by school boards to be principals often simply don't have the organizational, political and administrative skills to do the job, to meet the needs of the school." Federal policies rarely take proper account of such idiosyncratic state factors. Federal efforts to be more responsive to rural needs would be served by systematic study of aspects of the state context that shape federal/local relations.

But while some rural administrative problems may reflect special state situations, serious administrative limitations appear to be inherent in rural districts independent of state political arrangements. One frequent complaint heard during our fieldwork concerned the burden of paperwork imposed by growing numbers of federal and state programs and the frustrations of trying to meet these requirements with very few administrative and clerical personnel. As one superintendent of a sparsely populated North Carolina county remarked: "There are the same administrative requirements of paperwork—it takes the same amount of time to fill out these forms—regardless of the number of students. We need the same administrative staff as a larger district, but we can't afford it."

The administrative staffing situation in one rural Appalachian county that we visited is not atypical. The central office consists of a superintendent, a general supervisor, and a Title I director. The general supervisor, who oversees instruction in grades K-12, is also responsible for writing applications for all federal projects but Title I, and filling all other administrative, informational and evaluative requirements of these programs. She commented: "Federal programs may provide for teachers, but they don't give money to cover the administrative or clerical help the programs require. Mine is an almost impossible job!"

When the person responsible for filling out forms is also the person responsible for supervising teachers, as is common in small rural districts, the administrative paperwork burden competes directly with classroom needs. Even without paperwork overload, the role of a general supervisor for grades K-12 is a challenging one. As one superintendent reflected: "It is hard to be shifting gears constantly, to work with elementary teachers on the reading curriculum in the morning and then do high school science in the afternoon."

The weak administrative infrastructure in rural districts may be contributing to what we might call a cycle of deprivation in some rural schools. Certain rural districts may be at a disadvantage in (1) identifying and documenting special needs among students that would make them eligible for special types of funding, (2) identifying potential outside funding sources, (3) applying successfully for such funds, and (4) implementing specially funded programs. One example of the first problem was cited by North Carolina's Title IVB coordinator. Gifted and talented students are one of the state's categories of high-cost children under Title IVB, which means that a district is entitled to a supplemental allocation if it has more

[8]We recognize that in urban districts as well federal education programs are often viewed, especially in poor communities, as a source of new jobs.

than the state-wide average percentage of such children. Twenty of the state's 144 districts, however, most of them small rural units, have never identified their gifted and talented students and offer no program for them. These districts were therefore automatically ineligible for a portion of these monies. Thus, at least some rural districts appear to suffer from an institutional equivalent of the old "the rich get richer" adage: An educational organization must have money and staff before it can acquire and use other monies and programs effectively.

POSSIBLE SOLUTIONS AND STRATEGIES

Having identified some special needs and problems of rural school districts, we turn now to a brief presentation of possible strategies for attacking these problems so as to enhance the capacity of rural systems to provide quality schooling. Some of the ideas listed below reflect policies and practices already in operation in some states; others are still hypothetical. Not all the areas covered lie directly within the domain of federal policies and programs, though some do. In those instances that do not, there nonetheless appears to be a potential federal role in sponsoring relevant research and encouraging states to take appropriate action.

Revision of Funding Mechanisms

Rural districts would presumably benefit from adherence to the following guidelines concerning funding mechanisms for federal education programs and related programs in which school districts participate.

1. Avoidance of eligibility criteria based on *numbers* of students in a particular category in favor of criteria based on minimum *percentages* of students or other measures that do not introduce a bias because of small size. (For example, eligibility for some funds under the Emergency School Aid Act (ESAA), to assist in desegregation, has depended on a district's having a minimum *number* of minority students, a criterion many rural districts cannot meet even though they have a significant percentage minority enrollment.)[9]
2. Recognition of small district size as a factor that raises per capita costs of schooling and a consequent departure from strict per ADA allocations (as many states have already accomplished by including small school or sparsity factors in their Title IVB formulas).
3. Greater sensitivity to district ability to pay in establishing matching requirements. Perhaps some sort of power equalizing mechanism—one that held district *effort* rather than percentage contribution constant—could be developed in programs requiring local districts to match federal funds.
4. Removal of minimum population requirements for participation in some programs. (One of the districts we visited, for example, was interested in applying for federal recreation funds reserved for nonmetropolitan counties. Upon contacting their state's federal relations person in Washington,

[9]ESAA regulations are presently being revised.

however, they learned there was a minimum population requirement of 25,000 people, making their county ineligible.)

While such changes in federal programs could help alleviate the resource deficiencies in rural districts, the fact remains that the federal government contributes a relatively small part of most district budgets. State school finance laws play a much greater role in determining the financial status of rural districts. The federal government is commencing a major program of research on school finance. As part of this program, the potential impact of state school finance reform on the welfare of rural schools should be studied, using finer-grained definitions of rural than nonmetropolitan.

Shared Services and Regional Agencies

One way to overcome some of the diseconomies of small scale and staffing limitations of small rural districts is for several districts to share the services of certain personnel or the purchase of special equipment. For example, an itinerant music teacher can offer instruction in several districts, none of which could support a full-time music specialist on its own. Rural districts may form informal cooperatives or consortiums to serve one specific function, such as providing special education teachers, or to enable sharing of a variety of services. In many states, cooperatives of small districts have joined together to propose and implement Title IVC projects, which is one way to increase participation by such districts in this federal program.

Another mechanism for supplementing the staff resources of small rural districts is the intermediate or regional education agency. Such agencies can fulfill a variety of administrative and support functions for rural schools, from accounting to curriculum consultation, which in urban districts would be filled by the district administration. Such agencies can thereby help compensate for some of the administrative limitations of rural districts addressed above.

Three of the four states we visited for the study have some system of intermediate or regional educational agencies serving local districts.[10] California has county school districts. Georgia has 16 Cooperative Educational Services Agencies (CESAs), supported half by the state and half by participating local systems (participation is voluntary). A CESA is governed by a board-of-control composed of its local districts' superintendents. North Carolina has created eight Regional Education Centers, actually branches of the state department of education, to bridge the gap between state government and LEAs.

The actual services provided by regional staff vary from state to state and among individual agencies within a state. Georgia's CESAs allow participating rural districts to share a variety of personnel—from psychometrists to equipment

[10]We did not consider Vermont's supervisory unions to be regional agencies because there is no district administration (superintendent) below this level. However, we did find that the supervisory unions play a role in the management of federal programs for LEAs similar to that of regional agencies in other states.

As of 1977, 11 states had legislated mandatory regional centers, four had legislation encouraging regional centers, another four had legislation to strengthen multi-district county units, and four had legislation to foster cooperatives (Sher and Rosenfeld, 1977· Stephens, 1975).

technicians—they could not afford to support independently. A few CESAs employ special education teachers who provide direct services to children in their component districts' schools. North Carolina's Regional Education Center staff, by contrast, as employees of the state department of education, provide only consultative advice but no direct services to students. California's county school districts offer a range of services, including staff development, media centers, and management support for federal programs.[11]

Regional agency staff tend to be active in facilitating local district participation in federal education programs—providing information about funding sources and projects available for adoption; assisting in proposal writing, planning, staff development, implementation, and evaluation. Each of North Carolina's eight Regional Centers has a Title IVC facilitator. In terms of service to rural districts, these facilitators get high marks from both local districts and state officials. Says a member of the state Title IVC staff: "The personal relationship of IVC facilitators with small rural systems is what's really important and has gotten us a greater response [from these districts]. They have expanded our service to the small systems, which need more hand-holding in the whole competitive process." A rural superintendent described the work of a Title IVC facilitator this way:[12] "Pre-Louise, I had to go to Raleigh, or it would take three weeks to get someone to come out here to help with planning. Louise will come over two or three times during planning. We can send her a list of our needs and she does the research to identify potential funding sources or find out places where good projects can be seen."

The relative merits of various models of regional agencies could be debated at length. Some observers have expressed concern that, if formal regional agencies assume more and more functions, especially if these include provision of direct services to children, the organizational capacity and independence of rural LEAs could be undermined. They fear that regionalization could become a sort of de facto district consolidation, with resulting decreased accountability of the educational system to rural communities. Such considerations need to be weighed in the course of implementing any regional concept.

Ultimately, the decision to establish regional agencies and choices about governance and functions rest with individual states and their local districts. However, given the apparent value of such agencies to rural districts in availing themselves of federal programs, complying with federal mandates, e.g., special education, and improving the quality of educational services, the federal government has a legitimate interest in sponsoring relevant research and sharing of experiences among states and in encouraging those states with no such system to explore its possibilities.

Building Organizational Capacity in Rural Districts

Given the limited resources in many rural districts, federal dollars obviously make a contribution when they go toward financing direct services to children. We

[11]For example, in rural parts of the state, the county district is often the funded agency under Title IVB. It handles most of the paperwork, accounting, and purchasing, dividing the grant among its component districts on the basis of their eligibility under the state formula. It is also common for county districts to run Title IVC projects.

[12]The name has been changed to protect the excellent.

would argue, however, that given the organizational limitations of some rural districts described above, federal programs might make an even greater contribution if they served to build the "organizational capacity" of rural school systems. By "organizational capacity" we mean a system's ability to identify and solve problems that impede its meeting the needs of its students. Capacity-building activities include staff development for teachers and administrators, particularly efforts aimed at promoting a continuing process of planning and implementing improvements in the system. Investment of federal dollars in such activities in rural districts might have a greater payoff than comparable efforts in urban areas, because small amounts of money might make a relatively larger difference to districts that typically have limited ability to support such developmental activities on their own.

Title IVC, with its mandate to promote "educational improvement," can address organizational capacity-building concerns more directly than many other federal programs. As shown in our discussion of Georgia's adoption grants, North Carolina's study and leadership training grants, and Vermont's mini-grants, the offering of smaller-sized awards and simplification of the proposal writing process seem to enhance rural participation in Title IVC. Such uses of Title IVC funds as North Carolina's "Strengthening Leadership Resources and School Management Practice Grants" deserve consideration for rural areas in other states. Districts we visited had, with these funds, undertaken a variety of interesting capacity-building activities. One had hired consultants to work with five school principals in the county to prepare them to assume various county-wide administrative responsibilities. This plan was intended to serve the dual function of supplementing the limited resources of the central office and enhancing communication between the district and its schools. Another rural district had won two leadership grants in the past two years. Its first project focused on communication, involving a retreat at which board members, administrators, and teachers jointly considered plans for district programs. Its second leadership grant was designed to enhance the district's ability to compete for outside funding. Ten members of the district staff (administrators, psychologists, a community school coordinator) received training in grantsmanship from outside consultants and will continue to serve as a proposal-writing cadre for the district.[13]

In states where rural districts are even smaller and have fewer administrative staff than North Carolina's county-wide districts, such leadership training activities could be organized on an area basis, utilizing the resources of an intermediate educational agency, or through a consortium of several districts. Similarly, regional and consortium arrangements can be used to organize staff development activities for teachers, since many rural districts can support only the most minimal staff development efforts on their own.

Another special aspect of organizational capacity in rural districts deserves mention. Typically, school board members in small rural districts are more involved

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[13]When a specially funded project is first contemplated by this district, a needs assessment is conducted to gather input from people at all levels of the system. The grantsmanship cadre then holds a joint session to decide the form of the proposal. One person with expertise in the substantive area of the proposal is assigned to write a rough draft, which is then critiqued by the grantsmanship cadre. Someone else then makes recommended changes and polishes the final version. The district's superintendent seemed pleased with the results so far—the one proposal written using this system had been funded—and regards this as a model of grantsmanship that can work for other small districts that cannot afford a grant writer.

in the day-to-day operations of the schools than are their counterparts in large urban districts. However, they often lack the background and skills that would enable them to make more informed and effective decisions on such matters as staffing, curriculum, and federal programs. A key element of organizational capacity development for rural districts, therefore, would be programs to help school board members become knowledgeable, independent participants in the school governance process.

Incentives for Rural Education Personnel

The complex of problems that make it difficult for some rural districts to attract and retain qualified teachers and administrators cannot be solved easily. Ultimately, the way to make such school districts more attractive places to work is to make their communities more economically and socially viable places to live. Short of this, however, it might be possible to design a program to provide special incentives for educational service in depressed rural areas. One rural principal suggested, for example, that credentialed teachers might agree to work several years in high-need rural districts in exchange for subsidization of study toward a master's degree. Another component of such an incentive program might focus at the undergraduate level, providing support for students to train specifically for service in rural schools. Provisions could also be made for attracting school administrators and special education teachers to remote rural areas.

In recent years, the federal government has sponsored programs to attract doctors to medically underserved rural areas. It should have a similar interest in helping meet rural areas' need for well-trained education personnel.

CONCLUSION

We have described how financial constraints, difficulties in attracting staff, and administrative limitations inhibit the ability of some rural districts, particularly sparsely populated and isolated ones, to sustain quality educational programs and to participate effectively in federally sponsored programs aimed at school improvement. A national commitment to provide equality of educational opportunity to all youngsters—where equality is defined not in terms of equal inputs but in terms of meeting special needs of individuals and localities—requires fuller understanding of those conditions of rural schooling that we have begun to sketch here. The potential solutions and strategies we have described are also only suggestive. Designing federal education policies that will more effectively serve rural students requires additional systematic research of the needs side of the equation and further exploration of potential strategies, both those we have identified here and others.

V. TENTATIVE CONCLUSIONS AND RECOMMENDATIONS

As befits an exploratory study, our findings should be treated with caution. This cautionary note is particularly appropriate because this research was designed to be a pilot effort involving only a small sample of states and federal programs. These caveats notwithstanding, we can offer tentative conclusions about federal funding patterns in rural areas. Moreover, the present analysis suggests several recommendations for policy and research, which we offer in the hopes that they will be systematically considered by subsequent studies.

1. Title IVB funding formulas are operating to provide rural districts (however defined) in our sample states with at least a proportional share of federal funds and in most cases somewhat more. As we have seen, inclusion of an explicit small school or sparsity factor in the funding formulas of five of our six states tends to give rural areas more dollars per student than nonrural; in the sixth state, North Carolina, use of economic disadvantage as a high-cost factor has the same effect, because of the high incidence of poverty in rural areas.

We do not know if the finding for North Carolina holds for the twenty other states that do not include small size or sparsity as a high-cost factor in their funding formulas. It would depend on the correlation between the high-cost factors that they use and ruralness. A member of the federal Title IVB staff told us that federal officials have attempted to influence more states to include sparsity or small size in their formulas to help compensate for the diseconomies of small scale in rural districts. Apparently some states have been reluctant, perhaps because those states are trying to encourage consolidation among small rural districts. In these states, rural districts might be relatively worse off in terms of Title IVB funding than the states we examined. Given the existing balance of power in the federal education system, Office of Education officials have relatively little leverage to alter state decisions about funding formulas. Where federal staff are unable to persuade a state to direct more resources to small rural districts, it would probably require appropriate change in the Title IVB legislation to alter the situation.

Once again we wish to stress that the finding that rural districts generally receive a more than proportional share of Title IVB funds must be understood in the context of rural needs and costs. Even with a greater per capita share of Title IVB dollars, a small rural district receives much less money than a populous district, and consequently can purchase fewer library books or less instructional equipment than can a large district with a lower per capita grant. Compared to urban and suburban districts, many rural districts have very limited stores of instructional resources (library books, science equipment, audio-visual materials, etc.), the area Title IVB is designed to supplement. Therefore, rural students may remain relatively disadvantaged in terms of these resources, even though they receive a somewhat greater per capita share of federal aid.

Funding formulas could be adjusted to take into account the district's capital, but we lack adequate data and measurement techniques about the resources now

available in rural schools and the costs of providing them. Therefore, it is now impossible to determine whether Title IVB funding formulas are adequately sensitive to differing rural circumstances.

RECOMMENDATION: To meet rural needs, federal formula grant programs should explicitly require states to include factors for small size and isolation.

2. Rural districts receive a disproportionately low share of Title IVC competitive grant funds in some states, but not in others. Funding patterns for Title IVC differ across states in ways that reflect not only rural conditions within the states but also state policy decisions. State policy in some cases (Georgia, North Carolina, and Maryland) seems generally to favor, intentionally or not, the more rural areas, whereas in other cases (California, Kansas, and Vermont) state funding strategies discriminate against the more rural regions. States face a real dilemma in developing a strategy for competitive awards. If, on the one hand, they emphasize concentrated funding to increase the chances of getting effective projects, they reduce the number of grants and may be making it harder for rural areas to receive an equitable share. If, on the other hand, they spread their resources, they make the competition easier and presumably more equitable, though perhaps at the risk of sponsoring less effective projects. On the basis of the analysis of Title IVC in our sample states, a highly competitive, concentrated funding strategy apparently places rural districts at a competitive disadvantage in both applying for and receiving grants. A system that awards a greater number of smaller-sized grants, whether for project adoption purposes or locally developed improvement efforts, has the advantage of allowing more rural districts to receive a low level of Title IVC funds. In some rural districts, even small amounts of discretionary money may be sufficient to improve schooling significantly.

Because part of the variation in funding patterns thus reflects decisions by state education agencies, inequities could be ameliorated by federal regulation and guidelines that constrain how states allocate federal funds. For example, one promising way to assure that even states opting for more competitive systems explicitly guard against a potential for rural competitive disadvantage would be to require them to establish a rural setaside in their Title IVC program.[1] The size of the setaside could be determined by formula (which might be based, for example, on the percentage of rural population in the state plus factors reflecting the existing resource base). This setaside might be reserved for a competition only among rural districts who *have never or not recently* received grants. If the grant sizes were small, perhaps intended for planning or initial adoption purposes, this setaside might enable a relatively large number of recipients to develop the administrative capacity, experience, and motivation to participate, at some future time, in a more general competition with metropolitan districts.

To supplement such a rural setaside, which would be intended to encourage greater rural *district* participation in grants competition, federal policy might require states to provide incentives for rural cooperatives or regional intermediate

[1]The scheme suggested here might be better established as part of a specific new federal program on rural education. However, we doubt the political feasibility of such an initiative and therefore have restricted our suggestion to be compatible with modifications of current legislation.

institutions to compete for Title IVC funds. Several states, including California in our sample, have moved in this direction. Federal policy might also require states to establish rural outreach programs, funded by federal funds, and directed by a special rural office in the state education agency. (Once again this policy could be accomplished by modification to the existing ESEA Title IV legislation.) Besides the value that such outreach activities might have in encouraging rural school districts to participate in federal programs, the existence of a rural office in the SEA might serve important political functions—e.g., legitimizing rural concerns in state government, providing a focal point for interest group activity, and installing an "internal lobbyist" who could speak for rural concerns in state government councils.

In summary, the variation in funding patterns of Title IVC may be an unintended, as well as an undesirable, effect of a federal policy that essentially ignores rural concerns in its regulations and guidelines. We advanced several, perhaps familiar, ideas whose implementation would constrain state discretion in allocating Title IVC funds. These ideas require more thought and analysis, but they do make it clear that feasible steps could be taken to assure that all states pay attention to the potential rural disadvantages in competitive grant programs.

RECOMMENDATION: Policymakers should assess the feasibility and analyze the consequences of various means (e.g., a rural setaside, awarding of smaller-sized grants, incentives for regional cooperation or other intermediate institutions, and the establishment of state-level rural outreach programs) of assuring state cooperation in reducing rural competitive disadvantages in grant programs.

3. Finer-grained definitions of ruralness yield a different picture of Title IVC funding patterns than does the usual metropolitan/nonmetropolitan distinction; thus, isolated rural districts receive fewer funds per student than do other rural districts. Our analysis first compared nonmetropolitan to urban and suburban funding patterns. Though this comparison is both necessary and pertinent, it falls short of defining the essence of the rural education problem. Indeed, comparisons between urban and rural—however they turn out—simply add fuel to political debate in which rhetoric too often obscures federal and state legislation and action. Consequently, we next looked within nonmetropolitan areas to see whether funding patterns varied for different degrees of ruralness. They did, both within and across states. For example, in those states where our more precise definitions showed rural districts to be receiving disproportionately small shares of Title IVC funds (California and Kansas), nonmetropolitan districts were receiving the same or greater per capita funding than metropolitan ones. The use of finer-grained definitions of ruralness exposes the extraordinary diversity of rural conditions.

Thus, equity *within* states should not necessarily be assessed only in terms of whether rural areas receive a "fair share" relative to urban districts, but also by whether money allocated to nonmetropolitan areas is distributed fairly. The evidence for Title IVC is that isolated districts receive less than other sparsely populated rural districts, and this finding holds for states favoring nonmetropolitan areas as well as those that do not (Vermont is the sole exception). But this evidence only hints at what may be pervasive biases within regions. For example, anecdotes about disproportionate shares of federal and state funds going to districts located near county seats or population centers in rural counties occur too frequently to be

dismissed. Unless federal and state policies specifically treat disparities within rural regions, funding inequities will continue to exist.

RECOMMENDATION: Future analyses of federal funding patterns should examine distribution of funds among more or less rural places within nonmetropolitan counties, rather than rely only on the urban-suburban-nonmetropolitan classification. Policy intended to assist rural areas should use finer-grained definitions of "rural" than "nonmetropolitan."[2]

4. Aggregate data analysis of federal funding patterns must be used cautiously. Our quantitative analyses identified several important hypotheses about funding patterns in the two programs, but they also revealed limitations on what can be learned through analysis of these data. The federal funding data as reported on the Section 437 tape, for example, pose a number of problems. They are incomplete in that they do not reveal the number of projects funded under Title IVC (only the total grants), the type of projects funded (e.g., developmental or adoption projects), the number of students served, or information on unsuccessful applications. To really understand how the Title IVC funding process works, therefore, one needs to collect data from individual states and districts. As noted earlier (see the footnote, p. 9) the accuracy and comparability of the Section 437 data across states and programs need to be verified. With respect to demographic information, the suppression of census data for very small school districts (enrollment under 300) creates major obstacles for analyzing rural area issues. Moreover, Title IVB and Title IVC probably represent the best cases for analysis using these data sources because they generally do not have the complex delivery systems using intermediate education agencies and cooperatives prevalent in other programs (handicapped, vocational education). These complexities make Section 437 and census data less useful for tracing the allocation of federal dollars to particular rural districts.

Even if these data problems were solved or if new financial data were collected for states and localities, the type of analysis we have performed answers one question: Where does the federal money go? It cannot treat how effectively the money is being used, what it is buying, or how it is changing the educational opportunities of rural youngsters. A different type of analysis is needed to answer these questions.

RECOMMENDATION: Future research on funding patterns for rural areas should concentrate on lower levels of aggregation, using data collected from individual states and districts.

5. Rural school districts, particularly in isolated or sparsely populated areas, can experience financial constraints, difficulties in attracting staff, and administrative limitations that hamper their ability to participate effectively in federal programs and to develop and maintain quality educational programs. Our fieldwork identified three categories of special rural difficulties, though we were unable to

[2]The Alcohol and Drug Abuse Prevention Act, passed by the Senate in May 1978, mandated that funds for school-based prevention programs be spent proportionately by population inside and outside SMSAs (*Education Daily*, May 30, 1978). Our analyses indicate that to guarantee equitable funding for rural areas, as this provision attempts to do, a distinction finer than nonmetropolitan would have to be used. It would be ironic if such well-intended legislation actually exacerbated disparities within rural areas.

measure them in quantitative terms or to determine how widespread they are in rural America. The three categories—financial constraints, difficulties in attracting staff, and administrative limitations—include a wide variety of specific problems, only examples of which were cited in our earlier discussion. Moreover, there may be other specifically rural system problems not subsumed by these categories.

Nonetheless, even this cursory qualitative examination revealed that such systemic problems have pervasive effects on the ability of at least some rural districts to manage and implement federal education programs. Whether it is a district's inability to attract specialized teachers to fulfill federal mandates to serve special target groups, its failure to participate in discretionary programs because of administrative staff limitations, or its difficulties in meeting fund matching requirements, such conditions interfere with the effectiveness of federal programs at the local level and therefore demand the attention of federal policymakers.

Many of these implementation problems could be eased by direct, limited federal steps or by federal influence on state policy and practices. These steps often would involve relatively minor adjustments in federal regulations or guidelines of the type described earlier—e.g., removal of minimum population requirements for eligibility for federal funds. Though this report does not attempt to analyze the costs of such changes, their potential benefit to rural areas is significant enough to warrant further analysis. In particular, research studies might be funded to catalog problems in implementing all federal programs in rural areas and to analyze the costs of alternative means of correcting these problems.[3] This research should include examination of existing legislation and regulations and field investigations that tap the perceptions of state and local implementors.

Correcting implementation problems in existing federal programs, however, is only a part, and not necessarily the most important part, of the problem. It is clear that the needs of some rural areas are great, particularly those we labeled "stressed" areas. But the nature of the federal role for treating these needs is less clear. On the one hand, some rural districts, though we did not attempt to estimate how many, find it difficult to maintain adequate schooling without additional outside assistance. On the other hand, outside assistance runs the risk of promoting imported changes that the local system cannot absorb; such intervention can undermine unique rural strengths without solving existing problems. Surely, there is no simple solution to this dilemma, even if major new federal monies were available for rural problems.

The development of policies that differentiate among rural districts, even in gross terms, might help deal with this dilemma. In particular, federal (or state) policymakers should assume diversity, not uniformity, among rural districts and should begin by using broad categorizations to capture this diversity. For example, one broad differentiation could be based on the concept of stressed areas. Because the needs of stressed areas are so great, the risks of unintended problems resulting from direct federal special assistance may be worth taking. In less needy areas, the

[3]Studies of implementation problems usually focus on a single federal program rather than cover all programs potentially impinging on local districts. We suggest the latter type of study because federal programs can interact with one another in ways that may produce unintended effects (Hill, 1979).

risks of massive federal programs may outweigh the potential gain; therefore, a more cautious, indirect federal presence seems appropriate.[4]

To identify stressed districts, research would be needed to develop a simple index of district stress (one that would not create additional paperwork for overworked districts). Federal initiatives toward such districts would have to go beyond helping them use existing federal programs more effectively; they would need to treat underlying causes of rural education disadvantage directly. For example, one candidate for exploration would be an integrated policy encompassing a range of social services and economic development efforts as well as education.[5]

Furthermore, federal policy should assume that some programmatic strategies work in some places but not in others (Berman, 1980). Thus, even within the category of stressed areas, for example, mechanisms for involving the community in school-related decisions in a rural mining town would probably need to be different from those on an Indian reservation. Not only should policymaking be sensitive to this reality, but research should be supported to help understand the conditions under which different change strategies are appropriate and how local ideas and energies can be mobilized for school improvement in different types of rural settings. The many federal and state programs over the past two decades embody a wide variety of approaches. For example, the body of this report mentioned cooperatives, regional agencies, projects to develop district organizational capacity, etc. Research should be supported to identify the successes and failures *within* these programs. In addition, because of the small size of rural districts and the large number of them, rural areas represent good places to try out, on a small scale, new programs (such as incentives to attract staff) that are specially tailored to meet local needs. The research emphasis in these trials ought to be on identifying conditions under which various policy alternatives might prove effective in different rural settings.

RECOMMENDATION: Research should be funded to identify and propose solutions to problems in implementing existing federal programs in rural areas. Policymakers should consider initiatives that differentiate among types of rural areas, with particular attention to stressed rural districts. Research should be supported (a) to explore the feasibility of an index of rural district stress and (b) to identify conditions under which various policy alternatives might prove effective in different rural settings.

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[4]As suggested in Recommendation 1, review of existing federal funding formulas and adjustments to compensate for common disadvantages of rural districts are in order.

[5]Sher (1977, Chapter 8) presents a proposal for school-based community development corporations that represents one possible model for such an integrated policy.

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